

## REMARKS

Claims 1-3, 6-34, 6-41 and 59-68 are presently pending in the case. Claim 60 has been amended. Support for the amendment can be found throughout the specification as originally filed. Reconsideration of the present case in view of the above amendments and the remarks herein is requested.

### Claim rejections under 35 USC §102

The Examiner rejected claims 1-3, 6-12, 14, 19-21, 31-34, 36-39, 59, 66 and 67 under 35 USC §102(b) as being anticipated by U.S. Patent 5,753,302 to Sun et al (hereinafter Sun et al '302). The rejection is traversed.

Sun et al '302 does not anticipate independent claim 1, for example. For a rejection under 35 USC §102 to be proper, the reference relied upon must disclose each and every element of the claimed invention. Non-disclosure of a single element, feature or limitation of the claim negates anticipation. Claim 1 is to an apparatus for filling a chamber, the apparatus comprising, *inter alia*, a hopper adapted to contain a bulk supply of a powder pharmaceutical formulation, and a vibratable membrane capable of disturbing a medium within the hopper, the disturbance of the medium being sufficient to control the flow of powder through an outlet in the hopper, wherein the bulk supply of powder is spaced from the vibratable member when the powder pharmaceutical formulation is present in the hopper and when the vibratable member is not vibrating, whereby the chamber may be filled by powder flowing through the outlet and into the chamber. These positively recited features are not disclosed by Sun et al '302. Sun et al '302 does not disclose a vibratable membrane that is spaced from the bulk supply of powder. Instead, Sun et al '302 describes a dispenser for propelling objects towards a substrate. The objects are propelled from a membrane to the substrate. The objects rest on the membrane before they are propelled towards the substrate (see Figure 2 of Sun et al '302). Furthermore, Sun et al '302 does not disclose an outlet through which powder can flow in a controlled manner. Since Sun et

al '302 does not disclose a system where powder is spaced from a membrane when the membrane is not vibrating and does not disclose an outlet as claimed, it does not disclose each and every feature set forth in claim 1, and it therefore does not anticipate the claim.

The Examiner's contentions on page 3 of the Office Action of January 3, 2008 do not serve to establish Sun et al '302 as a proper anticipatory reference. The Examiner first incorrectly characterizes that the language in claim 1 as functional language. The language of claim 1 is not function, but is instead a positive recitation of the structural arrangement of the invention. The Examiner then goes on to posit that Sun et al '302 would be capable of meeting the limitations of claim 1 if one were to: (1) rest the objects (1810) on the separation mesh (1770) instead of the vibration membrane (1760) and then (2) turn the entire device upside down so that the objects (1810) could fall onto the substrate (1790). In response, Sun et al '302 fails to disclose the arrangement envisioned by the Examiner. The Examiner has improperly distorted the teachings of Sun et al '302. There is no evidence to suggest that Sun et al '302 is capable of being used in the manner contended. Furthermore, the Examiner's proposition requires making structural modifications to the Sun et al '302 system (e.g. placement of the objects and orientation of the device) that are not permissible under 35 U.S.C. §102. For at least these reasons, the Examiner's contentions do not show Sun et al '302 to anticipate claim 1.

Applicant requests withdrawal of the rejection of claim 1 under 35 U.S.C. §102(b). In addition, Applicant requests withdrawal of the rejection of claims 2, 3 and 6-12, 14, and 19-21 which depend from claim 1 and are not anticipated by Sun et al '302 for at least the same reasons as claim 1.

Sun et al '302 also does not anticipate independent claim 31. Claim 31 is to a method of filling a chamber, the method comprising, inter alia, providing a bulk supply of a powder pharmaceutical formulation in a hopper and providing a separation between the powder and a vibratable membrane when the vibratable membrane is not vibrating;

disturbing a medium in the hopper by vibrating the vibratable membrane to fluidize the powder; and passing the powder through an outlet and into the chamber. Sun et al '302 does not disclose providing a separation between the powder and a vibratable membrane. As noted above, Sun et al '302 operates by propelling objects that are in contact with a vibratable membrane towards a substrate. The Examiner argues that "prior to providing the pharmaceutical powder into the hopper (1780) [of Sun et al '302], the vibrating membrane is not vibrating and pharmaceutical powder is provided separately and is not in contact with the vibrating member ..." In response, note that claim 31 recites "providing a bulk supply of a powder pharmaceutical formulation in a hopper ..." Since claim 31 recites powder in the hopper, the Examiner's argument is misplaced. Thus, Sun et al '302 does not anticipate claim 31.

Applicant requests withdrawal of the rejection of claim 31 under 35 U.S.C. §102(b). In addition, Applicant requests withdrawal of the rejection of claims 32-34, 36-39 and 59 which depend from claim 31 and are not anticipated by Sun et al '302 for at least the same reasons as claim 31.

In addition, Sun et al '302 does not anticipate independent claim 66. Claim 66 is to an apparatus for filling a receptacle, the apparatus comprising, inter alia, a hopper adapted to contain a bulk supply of a powder pharmaceutical formulation, a vibratable membrane capable of disturbing a medium within the hopper, the disturbance of the medium being sufficient to control the flow of powder through an outlet; and a powder vibrating member adapted to vibrate the bulk supply of powder while in contact with the powder. Sun et al '302 does not disclose both a vibratable membrane and a powder vibrating member in contact with the powder. Therefore, Sun et al '302 does not anticipate claim 66.

Applicant requests withdrawal of the rejection of claim 66 under 35 U.S.C. §102(b). In addition, Applicant requests withdrawal of the rejection of claim 67 which depend from claim 66 and is not anticipated by Sun et al '302 for at least the same reasons as claim 66.

The Examiner rejected claims 1-3, 6, 8, 9, 11-16, 22-24, 28-34, 36, 37, 39, 40 and 60-65 under 35 USC §102(b) as being anticipated by U.S. Patent 6,168,666 to Sun et al (hereinafter Sun et al '666). The rejection is traversed.

Sun et al '666 does not anticipate independent claim 1, for example. Claim 1 is to an apparatus for filling a chamber, the apparatus comprising, inter alia, a hopper adapted to contain a bulk supply of a powder pharmaceutical formulation, and a vibratable membrane capable of disturbing a medium within the hopper, the disturbance of the medium being sufficient to control the flow of powder through the outlet, wherein the bulk supply of powder is spaced from the vibratable member when the powder pharmaceutical formulation is present in the hopper and when the vibratable member is not vibrating and whereby the chamber may be filled by powder flowing through an outlet in the hopper and into the chamber. These positively recited features are not disclosed by Sun et al '666. Sun et al '666 does not disclose a vibratable membrane that is spaced from the bulk supply of powder. Instead, Sun et al '666 describes a dispenser for propelling beads towards a bead collector. The beads are propelled from a mesh to the collector. The beads rest on the mesh before they are propelled towards the collector (see Figure 2 of Sun et al '666). Furthermore, Sun et al '666 does not disclose an outlet in a hopper through which powder flows in a controlled manner. Sun et al '666 discloses the projecting of beads from the mesh to a collection zone and does not disclose the controlling of flow through an outlet. Since Sun et al '666 does not disclose a system where powder is spaced from a membrane when the membrane is not vibrating and does not disclose an outlet as claimed, it does not disclose each and every feature set forth in claim 1, and it therefore does not anticipate the claim.

The Examiner argues that Sun et al '666 clearly teaches that the vibrating membrane (CONE) vibrates to disturb the air in the hopper (BDP) in order to fluidize the powder (BEAD) without contacting the powder. However, even this interpretation of Sun et al '666 fails to disclose a vibratable membrane capable of disturbing a medium within the hopper, the disturbance of the medium being sufficient to control the flow of

powder through the outlet. Instead, Sun et al '666 discloses a metering pump. See Figure 2 of Sun et al '666. For these additional reasons, Sun et al '666 does not render claim 1 unpatentable.

Applicant requests withdrawal of the rejection of claim 1 under 35 U.S.C. §102(b). In addition, Applicant requests withdrawal of the rejection of claims 2, 3 and 6, 8, 9, and 11-16 which depend from claim 1 and are not anticipated by Sun et al '666 for at least the same reasons as claim 1.

In addition, Sun et al '666 does not anticipate independent claim 22. Claim 22 is to an apparatus for filling a chamber, the apparatus comprising, inter alia, a hopper adapted to contain a bulk supply of a powder pharmaceutical formulation, the hopper comprising an outlet; and a vibratable member spaced from the powder in the hopper when the vibratable member is not vibrating and when the hopper contains powder, the vibratable member being capable of fluidizing the powder in the hopper, whereby the chamber may be filled with powder flowing through the outlet and into the chamber. Sun et al '666 does not disclose a vibratable member spaced from powder when the vibratable member is not vibrating. As noted above, Sun et al '666 instead discloses a mesh that contacts beads and propels the beads towards a collector, and Sun et al '666 does not disclose an outlet as claimed. Since Sun et al '666 does not disclose all that is claimed, it does not anticipate claim 22.

Applicant requests withdrawal of the rejection of claim 22 under 35 U.S.C. §102(b). In addition, Applicant requests withdrawal of the rejection of claims 23, 24 and 28-30 which depend from claim 22 and are not anticipated by Sun et al '666 for at least the same reasons as claim 22.

Sun et al '666 also does not anticipate independent claim 31. Claim 31 is to a method of filling a chamber, the method comprising, inter alia, providing a bulk supply of a powder pharmaceutical formulation in a hopper and providing a separation between the powder and a vibratable membrane when the vibratable membrane is not vibrating;

disturbing a medium in the hopper by vibrating the vibratable membrane to fluidize the powder; and passing the powder through an outlet and into the chamber. Sun et al '666 does not disclose providing a separation between the powder and a vibratable membrane. Sun et al '666 operates by propelling beads that are in contact with a vibratable mesh towards a collector. Sun et al '666 also does not disclose an outlet and the passing of powder through the outlet and into a chamber. Thus, Sun et al '666 does not anticipate claim 31.

Applicant requests withdrawal of the rejection of claim 31 under 35 U.S.C. §102(b). In addition, Applicant requests withdrawal of the rejection of claims 32-34, 36 37, 39 and 40 which depend from claim 31 and are not anticipated by Sun et al '666 for at least the same reasons as claim 31.

In addition, Sun et al '666 does not anticipate independent claim 60. Claim 60 is to an apparatus for filling a receptacle, the apparatus comprising a hopper adapted to contain a bulk supply of a powder pharmaceutical formulation, the hopper comprising an outlet; a vibratable membrane capable of disturbing a medium within the hopper, the disturbance of the medium being sufficient to control the flow of powder through the outlet, and a chamber movable between a powder collecting position where the chamber collects powder flowing through the outlet and a powder ejecting position where the apparatus can eject powder from the chamber into a receptacle, whereby the chamber may be filled by powder flowing through the outlet and into the chamber. Sun et al '666 does not disclose an outlet as claimed. In addition, Sun et al does not disclose a chamber movable between a powder collecting position and a powder ejecting position, as claimed. Since Sun et al '666 does not disclose all that is claimed, it does not anticipate claim 60.

Applicant requests withdrawal of the rejection of claim 60 under 35 U.S.C. §102(b). In addition, Applicant requests withdrawal of the rejection of claims 61-65 which depend from claim 60 and are not anticipated by Sun et al '666 for at least the same reasons as claim 60.

The Examiner rejected claims 22 and 25-30 under 35 USC §102(b) as being anticipated by U.S. Patent 5,826,633 to Parks et al (hereinafter Parks et al). The rejection is traversed.

Parks et al does not anticipate independent claim 22, for example. Claim 22 is to an apparatus for filling a chamber, the apparatus comprising, *inter alia*, a vibratable member capable of fluidizing powder in the hopper that is not in contact with the vibratable member, whereby the chamber may be filled with powder flowing through the outlet and into the chamber. Parks et al does not disclose a vibratable member that fluidizes powder that is not in contact with the vibratable member. The Examiner contentions on page 7 of the Office Action of January 3, 2008 are purely speculative. Thus, Parks et al does not anticipate claim 22.

Applicant requests withdrawal of the rejection of claim 22 under 35 U.S.C. §102(b). In addition, Applicant requests withdrawal of the rejection of claims 25-30 which depend from claim 22 and are not anticipated by Parks et al for at least the same reasons as claim 22.

### **Claim rejections under 35 USC 103(a)**

The Examiner rejected claims 17, 18, 41 and 65 under 35 USC §103(a) as being unpatentable over Sun et al '666 in view of U.S. Patent 5,858,099 to Sun et al (hereinafter Sun et al '099). The rejection is traversed.

Sun et al '666 and Sun et al '099 do not render claims 17, 18, 41 and 65 unpatentable. Claims 17 and 18 depend from claim 1; claim 41 depends from claim 31; and claim 65 depends from claim 60. Claims 1, 31 and 60 are allowable over Sun '666, as discussed above. Since Sun et al '099 does not make up for the deficiencies of Sun et al '666, independent claims 1, 31 and 60 are allowable over Sun et al '666 and Sun et al '099. Furthermore, in contrast with the assertions of the Examiner, Sun et al '666 fails

to disclose a rotatable powder transport chuck. Therefore, claims 17, 18, 41 and 65 are allowable over Sun et al '666 and Sun et al '099 for at least the same reasons as claims 1, 31 and 60. Applicant requests withdrawal of the rejection of claims 17, 18, 41 and 65 under 35 U.S.C. §103(a).

The Examiner rejected claim 68 under 35 USC §103(a) as being unpatentable over Sun et al '302. The rejection is traversed.

Sun et al 302 does not render claim 68 unpatentable. Claim 68 depends from claim 66 which is allowable over Sun '302, as discussed above. Since claim 68 depends from an allowable claim, claim 68 is also allowable. Furthermore, claim 68 recites a frequency range that is not taught by Sun et al '302. Since Sun et al '302 is used for a different purpose than the invention of claim 68, it would not have been obvious to one having ordinary skill in the art to modify Sun et al '302 as suggested by the Examiner, particularly in the absence of any motivation to do so. Therefore, claim 68 is allowable over Sun et al '302, and Applicant requests withdrawal of the rejection of under 35 U.S.C. §103(a).

## Conclusion

The claims are allowable for the reasons given above. Thus, the Examiner is respectfully requested to reconsider the present rejections and allow the presently pending claims. Should the Examiner have any questions, the Examiner is requested to call the undersigned at the number given below.

Respectfully submitted,

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